

REBUTTAL TESTIMONY

of

David Brightwell

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Policy Program  
Energy Division  
Illinois Commerce Commission

Application Pursuant to Section 8-104 of the Public Utilities Act for Consent to and  
Approval of an Energy Efficiency Plan

Northern Illinois Gas Company  
D/B/A Nicor Gas

Docket No. 13-0549

February 11, 2014

1   **I.    Witness Identification**

2   **Q.    State your name and business address.**

3   A.    My name is David Brightwell. My business address is Illinois Commerce  
4       Commission, 527 East Capitol Avenue, Springfield, Illinois, 62701.

5   **Q.    Are you the same David Brightwell who previously testified in this**  
6       **proceeding?**

7   A.    Yes.

8   **Q.    What is the purpose of your rebuttal testimony?**

9   A.    Mr. Geoff Crandall, testifying on behalf of The Environmental Law and Policy  
10       Center ("ELPC"), proposes to change Nicor Gas' ("Nicor" or the "Company")  
11       rates in a separate proceeding as part of the Company's Energy Efficiency ("EE")  
12       portfolio. The general proposal is to lower the monthly customer charge while  
13       increasing the volumetric charge in order to provide a stronger price signal  
14       (ELPC Ex. 1.0, 23-26). Company witness Malcolm Quick responds to Mr.  
15       Crandall's proposal (Nicor Gas Ex. 10.0). I reply to both of these witnesses.  
16       Mr. Edward Weaver, testifying on behalf of the Company, amends his previous  
17       spillover proposal and comments on my proposal to adjust the Company's  
18       savings goals in the event that spillover is included in NTG ratio values. I reply to  
19       these items in his rebuttal testimony (Nicor Gas Ex. 8.0).

**II. Reply on Proposal to change Nicor's tariff**

**Q. What is your opinion of Mr. Crandall's proposal to increase the volumetric portion of distribution rates in order to send a greater price signal to customers?**

A. As indicated in my response to ELPC's Data Request 1.8, attached as ICC Staff Ex. 4.1, Staff might consider the alteration of rates at the time of Nicor's next rate case in order to increase the price signal. However, the conservation effect of changing the price signal is one of several factors to consider. Staff would also need to consider, among other things, the extent to which the proposed rate design would align rates with the underlying cost of service. The entirety of the evidence would need to be considered before Staff could form an opinion on whether and/or the degree to which it believes rates should be adjusted.

**Q. Why wait until Nicor's next rate case instead of altering the rates in a proceeding such as the one proposed by Mr. Crandall?**

A. Changing the rates isn't as simple as merely assuming the costs are the same as what were determined in the most recent rate case and then altering the percentages of costs recovered through monthly customer charges and volumetric charges. It makes more sense to review the totality of costs, risks, and market conditions in order to make any alterations to the rates that reflect all factors that are determined in the ratemaking process.

**Q. When was Nicor's last rate case?**

41 A. Nicor last filed a rate case in 2008. The rates went into effect in April 2009. (See  
42 Docket No. 08-0363).

43 **Q. Are costs of service likely to have changed since 2009?**

44 A. Yes. It is almost five years since Nicor's last rate case concluded. Ameren  
45 Illinois Company and The Peoples Gas Light and Coke Company and North  
46 Shore Gas Company have each been to the Commission twice with petitions to  
47 increase gas rates since the time of Nicor's most recent rate case. It is very  
48 likely that Nicor's costs have changed since March 2009.

49 **Q. Mr. Crandall also proposes to credit any energy savings from increasing**  
50 **the price signal towards Nicor's EE program. What is your opinion of this**  
51 **proposal?**

52 A. This is a significant change in the EE paradigm that is being established in  
53 Illinois. I do not recommend crediting changes in consumption from rate changes  
54 to the EE portfolio.

55 **Q. Your recommendation to not count savings from price changes seems to**  
56 **be in conflict with a quote from you that Mr. Crandall provides in his**  
57 **testimony (ELPC Ex. 1.0, 25 lines 530-535). Can you explain the apparent**  
58 **conflict?**

59 A. Mr. Crandall cited a portion of the response rather than the entirety of my  
60 response to ELPC Data Request 1.7. In the sentence directly before the one  
61 quoted by Mr. Crandall, I stated, "Staff does not see a need to evaluate, measure  
62 or verify savings from shifts away from fixed charges, as any savings created by

the shift are independent of the EE programs.” My entire response to ELPC DR 1.7 is attached to my rebuttal testimony as Staff Ex. 4.2.

**Q. Why do you not support Mr. Crandall’s recommendation to credit the EE program with savings from tariff changes?**

A. Although I am not an attorney, I do not interpret Section 8-104 of the Public Utilities Act as allowing credit towards achieving EE savings requirements from savings that result from changing the price signals in the recovery of distribution rates. Subsection (c) refers to natural gas utilities implementing cost-effective energy efficiency measures in order to meet specified annual incremental savings goals. I don’t believe changing the price to lean more towards volumetric recovery constitutes a utility implementing an energy efficiency measure. Additionally, at some threshold, allowing changes in the price structure to count towards meeting EE goals could reduce or possibly eliminate the rebate programs. This again seems contrary to the intent of the law, which is to encourage the utilities to implement EE measures. Furthermore, if it becomes permissible to count savings that result from increasing the price signal, then there will be a need to determine how to evaluate those savings and presumably to determine whether the Company alters rates in order to increase conservation and efficiency among its customers or whether the rates would have been altered as a part of normal business.

83 **Q. Do you interpret the Commission Report<sup>1</sup> referred to by Mr. Crandall in his**  
84 **direct testimony (ELPC Ex. 1.0, 24-26) to indicate that increasing volumetric**  
85 **charges is intended to count as part of an EE portfolio?**

86 A. No. The Commission was statutorily required to submit to the General Assembly  
87 an assessment of whether the budget limitations imposed in Section 8-104(d)  
88 unduly constrain the procurement of EE measures. I interpret the Report as  
89 indicating that increasing the volumetric charge was a method the Commission  
90 could consider to reduce usage by utility customers so that the General  
91 Assembly did not have to increase the budget limitations.

92 **Q. Explain your point that increasing the price may reduce the rebate**  
93 **program.**

94 A. If it becomes permissible to count savings from increasing volumetric distribution  
95 rates, there is a price at which the goals can be met without having a program  
96 offering rebates. If a utility can meet its goals without offering rebates, I imagine  
97 it would do so or at least that the incentive exists to reduce the rebate program.

98 **Q. Mr. Crandall cites to the Commission Report that the price elasticity of**  
99 **demand is approximately 0.1. Can you explain elasticity of demand?**

100 A. Elasticity of demand is a measure of the percentage change in the quantity of a  
101 good or service consumed that results from a one percent change in the price  
102 when all other factors that affect demand remain unchanged. In the context of

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<sup>1</sup> Report to the Illinois General Assembly concerning coordination between Gas and Electric Utility energy efficiency programs and spending limits for Gas Utility energy efficiency programs, August 31, 2013 ("Commission Report").

the 0.1 elasticity cited in the Commission report, this indicates that a one percent change in the price of gas results in a 0.1% change in the quantity of gas demanded when all other factors that affect demand remain unchanged (or a 10% price increase results in a 1% reduction in gas consumption).

**Q. If the elasticity is estimated, why can't savings be determined by applying the change in price in order to determine the change in consumption?**

A. There are several reasons. In my definition of elasticity I emphasized the caveat "when all other factors that affect demand remain unchanged." This is important because the Company's goals are based on 2009 sales. In order to determine what savings would be from a price change, one would need to consider what the other conditions, such as weather and economics, were like in 2009 in order to determine the savings that would result from a price change. Additionally, the volumetric portion of the distribution charge is only one component of the price signal. The cost of the actual gas is the other component. Gas prices vary. If the distribution volumetric charge increases by 30% from \$0.10 to \$0.13, then the percentage change in price is 6% if the price of gas is \$0.40, but only 4.3% if the price of gas is \$0.60<sup>2</sup>. The utilities have all requested deemed savings values and prospective application of those values in order to increase the certainty in meeting their targets. I imagine similar work toward deeming a price effect would

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<sup>2</sup> With a \$0.10 distribution volumetric charge and \$0.40 gas price the total volumetric price would be \$0.50. Increasing the volumetric charge by an additional \$0.03 increases the total volumetric price to \$0.53 and represents a 6% increase in price. When the price of gas is \$0.60 with a \$0.10 volumetric charge, the total volumetric price is \$0.70 and the same \$0.03 increase represents a 4.28% price increase.

122 need to take place in order for Nicor to be comfortable with the volatility in  
123 meeting its savings goals that are inherent with the elasticity being tied to the  
124 price of gas. Finally, the price elasticity of demand only indicates that  
125 consumption decreases by a certain amount as a result of an increase in price.  
126 Some of this savings will be conservation activities such as setting the thermostat  
127 at a lower temperature in the winter months. Other activities will include  
128 purchasing more efficient equipment. There is no guarantee that customers who  
129 are motivated by the price change to purchase more efficient equipment will not  
130 use utility rebates in the process. This poses the potential problem of double  
131 counting savings. The double counting of savings would occur if Nicor receives  
132 credit from the rebate and then again from the price effect.

133 **Q. Mr. Quick testifies that a portion of the Commission Report that states that**  
134 **the distribution charge is approximately 40-50% of the bill is simply not**  
135 **true (Nicor Gas Ex. 10.0, 12). Do you agree?**

136 **A.** In part I agree with Mr. Quick and in part I disagree. The portion of the Report to  
137 which Mr. Quick quotes as saying the “distribution charge is approximately 40-  
138 50% of the bill” also refers to the volumetric distribution charge within the same  
139 sentence<sup>3</sup>. Id. I believe that as a result, Mr. Quick is confusing volumetric  
140 distribution charges with total distribution charges. My impression of Mr. Quick’s  
141 interpretation comes from his statement that for Peoples Gas “the volumetric

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<sup>3</sup> The sentence reads: “The importance of these findings is that increasing the volumetric distribution charge by even 10% (the distribution charge is approximately 40%-50% of the bill) could lead to a 0.4%-0.5% short term reduction and 0.88%-1.1% long-term reduction in gas use over what it would be with the lower volumetric price.”



142 distribution charge recovers 40% to 50% of *base revenues*, but even for Peoples  
143 Gas the volumetric distribution charge would be less than 40% of the total bill.”  
144 (Nicor Gas Ex. 10.0, 12) (emphasis in the original). In order to determine the  
145 percentage of the total bill for an average Nicor customer under normal weather  
146 conditions, one would need to know the price of gas at the time of use and the  
147 quantity of gas used. Under current rates and using gas prices reported on  
148 Nicor’s website, the total distribution charge for a customer who uses 1000  
149 therms annually would be about 30% of the total gas bill<sup>4</sup>. For a customer who  
150 uses fewer than 1000 therms, the distribution charge would represent a greater  
151 percentage of the total bill. For a customer using more, the distribution charge is  
152 less than 30%.

153 **Q. Mr. Quick also provides an analysis showing that increasing the**  
154 **distribution charge by 10% results in a very small change in total savings**  
155 **compared to the value estimated by Mr. Crandall (Nicor Ex. 10.0, 13). Do**  
156 **you agree?**

157 **A.** No. While I do not dispute Mr. Quick’s estimate of only 2.75 million therms being  
158 saved as a result of a 10% increase in the distribution charge, I think the wrong  
159 analysis is being applied. If 1000 therms is the usage for an average customer, a

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<sup>4</sup> Nicor’s distribution charge for a Rate 1 customer consists of a \$13.55 monthly charge and a \$.0485/therm charge. According to the Company’s website, the prices of gas for January 2014 and February 2014 are 46 cents/therm and 51 cents/therm, respectively. Averaging the January and February gas prices indicates a price of 48.5 cents/therm. For a customer using 1000 therms the price of gas is \$485 and the price of distribution is \$211.10 (\$13.55/mo\*12months + 1000therms\*\$.0485/therm = \$211.10). The total cost of gas is \$696.10. The \$211.10 distribution charge represents approximately 30% of that total.

10% drop in the monthly customer charge (from \$13.55 to \$12.21) would require the per therm charge to increase by \$0.0161 in order to be revenue neutral<sup>5</sup>. This represents about a 3% change in the current total gas price<sup>6</sup>. Using the short-run elasticity of -0.1 and long-term elasticity -0.22 cited in the Commission Report (Commission Report, 23-24), a 3% price increase would reduce gas usage by 0.3% in the short term and 0.66% in the long term if all other factors affecting demand remain unchanged. As Mr. Quick indicates, only the first-year savings could be credited under Section 8-104 (Nicor Gas Ex. 10.0, 13). If the Commission were to permit savings from an increased price signal by increasing volumetric distribution rates, only the 0.3% short run reduction would apply. Mr. Quick indicates approximately 4.1 billion therms serves as the Sales basis for reductions required under Section 8-104 (Nicor Gas Ex. 10.2). A 0.3% reduction in those sales would equal approximately a 12.3 million therm reduction. The 12.3 million therm estimate is based on a 10% reduction in the current customer charge being offset with a \$.0161/therm increase in the volumetric charge. If a larger decrease in the customer charge, which is offset by a larger increase in the volumetric charge, were ordered by the Commission, a greater savings would be expected. If the

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<sup>5</sup> Reducing the monthly charge by \$1.34 or 10% represents a \$16.08 per customer annual reduction in revenue. If the average customer uses 1000 therms/yr., the volumetric charge would need to recover the \$16.08. Therefore the volumetric charge would need to increase by \$0.01608 (\$16.08 per customer/ 1000 therms per customer.)

<sup>6</sup> The current gas price would consist of the \$0.0485/therm distribution charge and the \$0.485/therm gas price. Therefore the total price is \$0.5335. Increasing the price by \$.0161/therm as described in footnote 4, represents a 3% increase ( $.0161/.5335 = 0.03$ ).

177 Commission ordered a smaller reduction in the customer charge, which is offset by  
178 a smaller increase in the volumetric charge, a smaller savings would be expected.

179 **Q. Are you advocating for a 10% drop in the customer charge?**

180 A. No. The example was for illustrative purposes only. As I stated previously in my  
181 rebuttal testimony, any changes to the monthly customer and volumetric charges  
182 would best be determined in a rate case where Staff could consider the entirety of  
183 the evidence before recommending changes. (Staff Ex. 4.0, 2)

184 **III. Reply to Company witness Edward Weaver**

185 **Q. Please summarize Mr. Weaver's amended spillover proposal.**

186 A. Mr. Weaver proposes that the following language be included regarding spillover:

187  
188 Excluding spillover from NTG calculations is likely to unfairly reduce a program  
189 administrator's calculated savings, but because it can be costly to determine  
190 spillover, the independent evaluator is not required to always include it in NTG  
191 ratio calculations. However, the independent evaluator should consider spillover,  
192 including, when appropriate, relying on deemed values developed from  
193 evaluations of other programs, while being mindful of any excessive costs to  
194 measure spillover in relation to the predicted impacts of such measurements.  
195 (Nicor Ex. 8.0, 13) (emphasis added)).  
196

197 Mr. Weaver's proposal is similar to the language used by the Commission in the  
198 Final Order approving Commonwealth Edison's EE plan filing (Commonwealth  
199 Edison Company, ICC Order Docket No. 13-0495, 101 (Jan. 28, 2014). The  
200 underlined portion of Mr. Weaver's quote represents a deviation from what the  
201 Commission previously approved.

202 **Q. Please provide your opinion of Mr. Weaver's proposed modification.**

203 A. The language is too vague to be usefully applied. The Commission should use the  
204 same language used in the Docket No. 13-0495 Final Order. The term “when  
205 appropriate” is similar to “significant market or program change” that is found in the  
206 current version of the NTG Framework. It is unclear when it is appropriate and  
207 when it is not appropriate to include deemed values from other programs. Is it  
208 appropriate when the programs to which outside spillover estimates are to be  
209 applied are similar in design? If so, should they apply if the other jurisdiction does  
210 not have a first-year savings mandate or the evaluation looked at spillover that  
211 occurs in future years? What if the other program offers higher incentives? What if  
212 customers in that area typically experience higher gas prices?

213 **Q. What is your recommendation regarding adjusting goals to account for**  
214 **spillover?**

215 A. In my Direct Testimony, I stated that it was my understanding that Nicor used  
216 currently available NTG values when estimating attainable savings and presenting  
217 modified goals to the Commission. Since those goals were determined from NTG  
218 values that did not include spillover, any spillover that is later approved should  
219 result in upward adjustments to the modified goals. (Staff Ex. 2.0, 9.)

220 **Q. Mr. Weaver argues that your proposal to adjust modified goals in the event**  
221 **that spillover is included is unnecessary (Nicor Ex. 8.0, 18). Please**  
222 **summarize his reasoning.**

223 A. According to Mr. Weaver, it is unnecessary because “Nicor Gas relied on NTG  
224 values that mirrored the consensus values reached by the SAG for PY3. Because  
225 these values include spillover estimates where appropriate, there is no need to  
226 make adjustments to the proposed goals to somehow correct for spillover estimates  
227 as recommended by Dr. Brightwell.” Id.

228 **Q. Do you agree with Mr. Weaver’s assessment?**

229 A. No. I find it ironic that Mr. Weaver is arguing for the inclusion of spillover and for  
230 certainty while also maintaining that adjusting savings goals to account for spillover  
231 is unnecessary because “these values include spillover estimates where  
232 appropriate.” Id. (emphasis added). In my opinion, the entirety of Mr. Weaver’s  
233 testimony indicates an opinion that savings are being unaccounted for because  
234 spillover isn’t included in all programs for which it is appropriate. My proposal is to  
235 adjust savings goals to account for the inclusion of spillover that may later be  
236 considered appropriate but that wasn’t factored into the estimates when modified  
237 goals were being proposed for Commission approval.

238 If Mr. Weaver is accurate in his description that all appropriate spillover is already  
239 included in NTG ratio values, then I am unsure why he originally proposed to  
240 exclude free ridership estimates unless spillover was also included (Nicor Ex. 2.0,  
241 17) or why he is now seeking to modify the Commission’s language from the  
242 Docket No. 13-0495 Final Order to seek deemed spillover from other jurisdictions,  
243 “when appropriate.” (Nicor Ex. 8.0, 13).

244    **Q.**     **Does this conclude your rebuttal testimony?**

245    **A.**     Yes.

Response to ELPC  
First Set of Data Requests to Staff  
1.1 through 1.13  
Docket No. 13-0549  
Response Date: January 17, 2014

Respondent: David Brightwell  
Title: Economic Analyst  
Address: 527 East Capitol Avenue  
Springfield, IL. 62701

- 1.8 Does Staff support altering the gas utility tariffs to increase the price signal during the current EE plan period, May 2014 –June 2017?

Response:

Staff objects to this request as vague and ambiguous. To the extent that the request seeks information regarding “gas utilit[ies]” generally, rather than Nicor specifically, Staff further objects to the request as seeking information that is neither relevant or material, nor likely to lead to the discovery of relevant or material information. Answering further, and without waiving such objection, the Policy Division might consider the alteration of tariffs to increase the price signals at the time of Nicor’s next rate case, depending upon the facts and circumstances presented in such a proceeding. However, the conservation effect of changing the rate design is only one component of the overall determination of rates. For example, Staff would also need to consider, among other things, the extent to which the proposed rate design would align rates with the underlying cost of service. The entirety of the evidence would need to be considered before Staff could form an opinion on whether and/or the degree to which it believes rates should be adjusted.

Response to ELPC  
First Set of Data Requests to Staff  
1.9 through 1.13  
Docket No. 13-0549  
Response Date: January 17, 2014

Respondent: David Brightwell  
Title: Economic Analyst  
Address: 527 East Capitol Avenue  
Springfield, IL. 62701

- 1.7 How does Staff envision that any shift from fixed charges to volumetric charges, as discussed in the Report above, would be evaluated, measured and verified?

Response:

Staff objects to this request as vague, ambiguous and calling for speculation. Answering further and without waiving such objections, Staff does not see a need to evaluate, measure or verify savings from shifts away from fixed charges, as any savings created by the shift are independent of the EE programs. To the extent other parties believe it is necessary, Staff is open to discussing the necessity of and methods to evaluate, measure or verify savings within the Stakeholder Advisory Group or within the Commission dockets in which any shifts away from fixed charges would take place.